Objectives:

Ebusinesses are increasingly facing the need of porting the provision of their e-services to mobile customers. Evolving requirements, such as reliability, security, scalability, performance and privacy, from fixed to mobile settings, has revealed new and important challenges. This is due to the behavioural constraints that mobility poses, and that were not faced in traditional distributed settings. Examples include: dynamic network topology, changes in location, constrained resource availability, communication protocols heterogeneity, unstable connectivity, and so forth. Industrial practice is demonstrating that such transition is not straightforward and tends to be costly. In particular, the evolution may break the architecture of the software system, thus calling for substantial and expensive changes. Even when the system is (re)built from scratch, it is unclear if and how the state of the art in software architectures relate to the requirements and concerns brought forward by mobile software systems. Likewise, there is still a lack of systematic software engineering methods and techniques which can assist in developing and evolving mobile software systems. The goal of this special issue is to address these gaps by strengthening the cross fertilization of advances from requirements and domain engineering, software architectures, and middleware to systematically develop and evolve dependable software architectures supporting mobility. The issue will address challenges and share novel results in developing and evolving dependable mobile software systems. The special issue will also feature extended contributions from the First International ICSE Workshop on Software Architectures and Mobility (SAM) and invited positions from key researchers for setting roadmaps for the field.
**Topics:**

We invite contributions featuring novel approaches and methodologies, critiques of existing work, industrial studies, empirical studies, as well as negative results and pitfalls. Papers will be selected depending on their originality, quality, and relevance to the theme. Topics to be covered by this special issue include, but are not limited to, the following:

- Relating non functional requirements to architectures for mobile environments;
- Patterns and architectural styles for mobility; Model Driven Architectures and mobility;
- Software Product Line Architectures and mobility;
- Aspects Oriented Software Architectures for mobile environments;
- Service Oriented Software Architectures and mobility;
- Middleware induced software architectures for mobile environments;
- Security, trust and privacy issues in software architectures for mobile environments;
- Performance, reliability, heterogeneity, scalability, and dependability issues in software architectures for mobile systems;
- Architectural stability and related technical/economical issues importing distributed architectures to mobile settings;
- Architectural centric maintenance and evolution in mobile environments;
- Architectural centric testing for mobility;
- Empirical and industrial studies (e.g., architectural changes upon moving from fixed distributed to mobile environments, positive/negative results, and pitfalls).

The Journal of Systems and Software seeks to bridge theory and practice. Both theoretical and practical articles are encouraged. However, theoretical articles must include some empirical evaluation, practical demonstration, or substantive discussion of the practical application of the proposed ideas.

**Submission Information:**

All manuscripts and any supplementary material should be submitted via the journal's online submission and peer review systems at [http://ees.elsevier.com/jss](http://ees.elsevier.com/jss). Follow the submission instructions given on this site. Please select the article type as “SPECIAL ISSUE: Architecture and Mobility”. Abstracts should be emailed to the Guest Editors, a week before the full manuscript submissions deadline.

All manuscripts should be compliant with the journal's submission guidelines for special issues. Please refer to the following site:


Manuscripts must not have been published previously or be currently under consideration for publication in any other journals or conferences. Significant extensions to substantive papers published in conferences are also welcome, provided that the editors are made aware of the previous publications.)
Important Dates:

Abstract (email to guest editors): 23rd Nov 2008
Firm Deadline for Author Submission: 30th Nov 2008
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